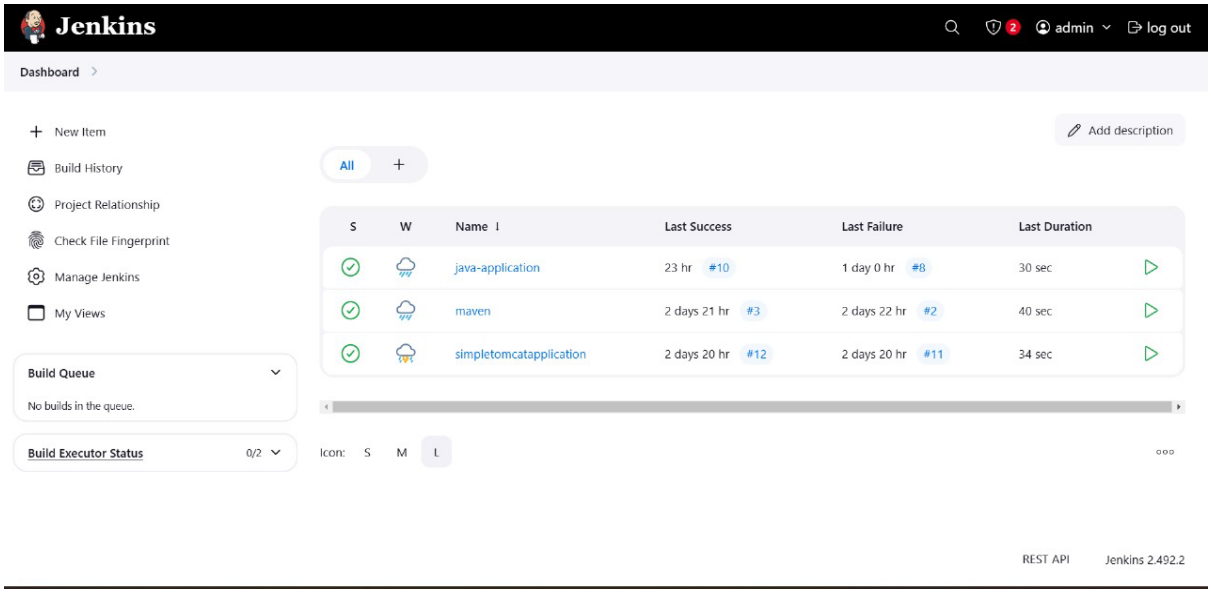
FINAL PROJECT

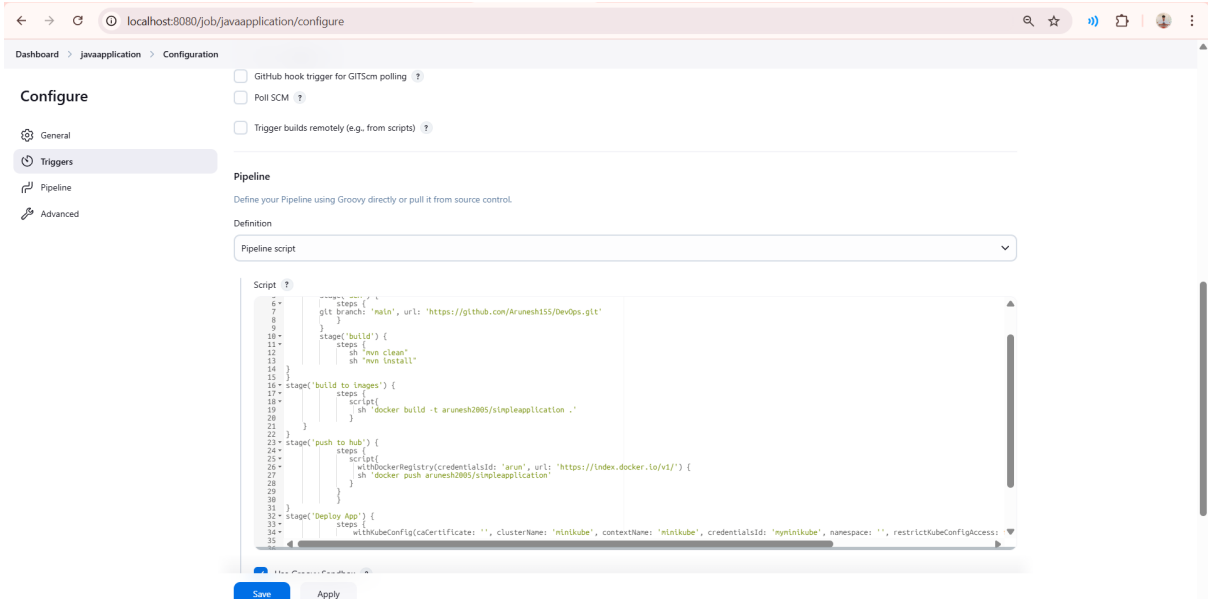
DAY-06

JAVA-APPLICATION DEPLOYMENT IN MINIKUBE

CREATION OF A PIPELINE PROJECT



PIPELINE SCRIPT



PIPELINE SCRIPT CODE

```
pipeline {
   agent any


   stages {
      stage('scm') {
         steps {
      git branch: 'main', url: 'https://github.com/Arunesh155/DevOps.git'
         }
      }
      stage('build') {
         steps {
           sh "mvn clean"
           sh "mvn install"
}
}
stage('build to images') {
         steps {
           script{
            sh 'docker build -t arunesh2005/simpleapplication .'
           }
   }
}
stage('push to hub') {
         steps {
           script{
            withDockerRegistry(credentialsId: 'arun', url: 'https://index.docker.io/v1/') {
            sh 'docker push arunesh2005/simpleapplication'
           }
```

```
        }
        }
}
stage('Deploy App') {
        steps {
          withKubeConfig(caCertificate: '', clusterName: 'minikube', contextName: 'minikube', credentialsId: 'myminikube', namespace: '', restrictKubeConfigAccess: false, serverUrl: 'https://192.168.39.226:8443'){

          sh 'kubectl apply -f deploy.yaml --validate=false'
        }
}
}
}
}
```

DEPLOYMENT FILE

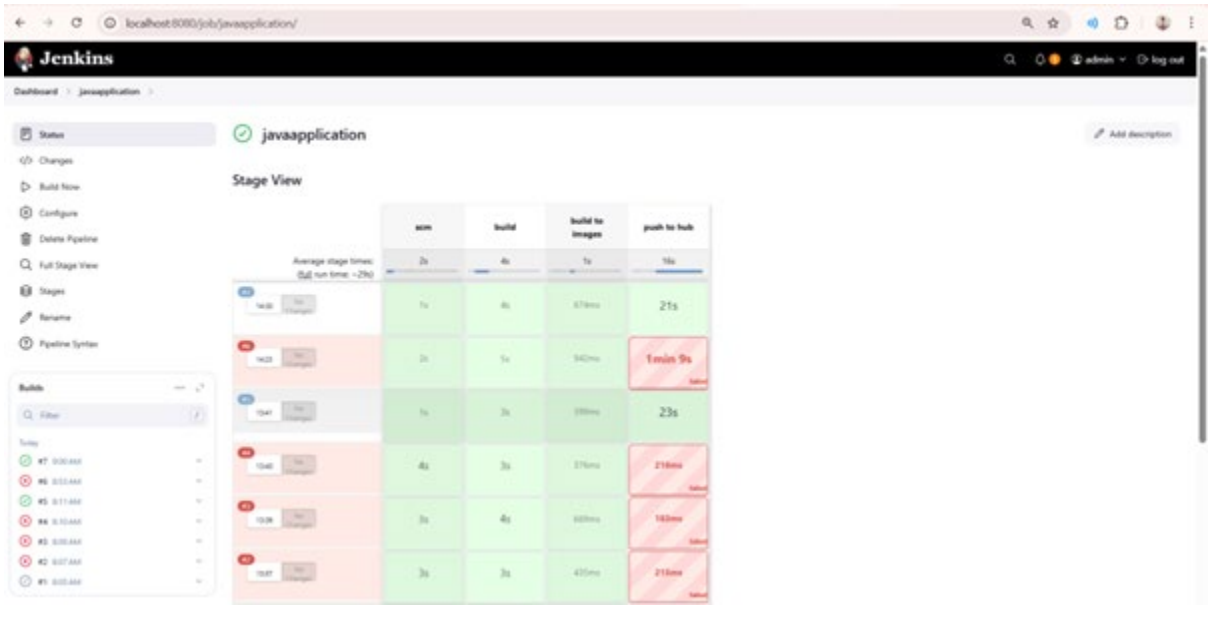
DEPLOY.YAML

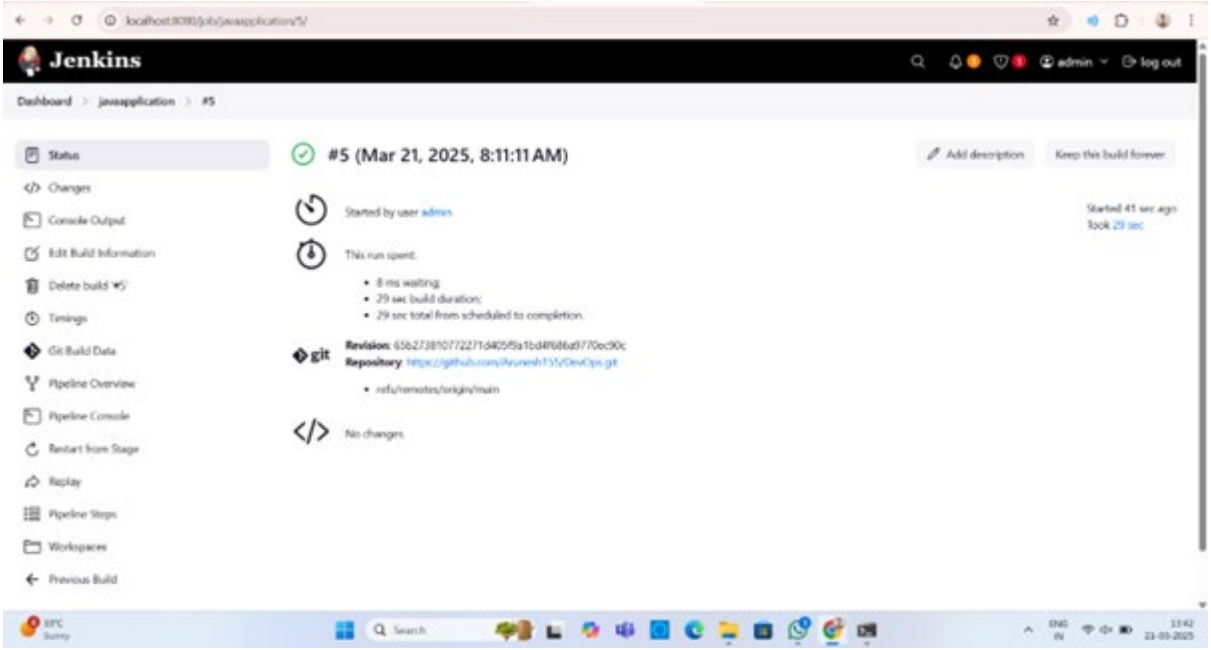
```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: my-deploy
  labels:
    name: my-deploy
spec:
  replicas: 5
  selector:
    matchLabels:
      apptype: web-backend
```

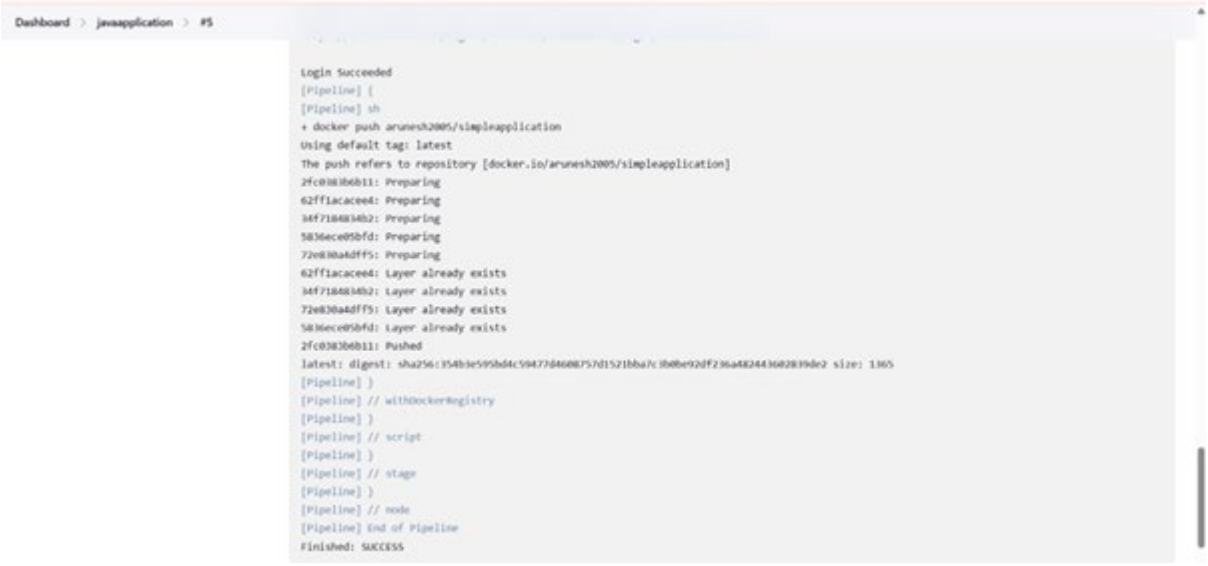
```
  strategy:
    type: RollingUpdate
  template:
    metadata:
      labels:
        apptype: web-backend
    spec:
      containers:
      - name: my-app
        image: arunesh2005/simpleapplication
        ports:
        - containerPort: 9000

---

apiVersion: v1
kind: Service
metadata:
  name: my-service8
  labels:
    app: my-service
spec:
  type: NodePort
  ports:
    - port: 9000
      targetPort: 8080
      nodePort: 30002
  selector:
    apptype: web-backend
```

CRENADENTIALS

STAGE VIEW OF BUILD








```
arunesh@Arunesh:~$ kubectl get pods
NAME                          READY   STATUS              RESTARTS   AGE
my-deploy-855fc965b7-z6h7n    0/1     ContainerCreating   0          3m8s
arunesh@Arunesh:~$ kubectl get pods
NAME                          READY   STATUS    RESTARTS   AGE
my-deploy-855fc965b7-z6h7n    1/1     Running   0          4m16s
arunesh@Arunesh:~$ kubectl apply -f new_dep.yml
deployment.apps/my-deploy configured
service/my-service unchanged
arunesh@Arunesh:~$ minikube service my-service
|-----------|------------|-------------|---------------------------|
| NAMESPACE |    NAME    | TARGET PORT |            URL            |
|-----------|------------|-------------|---------------------------|
| default   | my-service |        8080 | http://192.168.49.2:30078 |
|-----------|------------|-------------|---------------------------|
🏃  Starting tunnel for service my-service.
|-----------|------------|-------------|------------------------|
| NAMESPACE |    NAME    | TARGET PORT |          URL           |
|-----------|------------|-------------|------------------------|
| default   | my-service |             | http://127.0.0.1:36897 |
|-----------|------------|-------------|------------------------|
🎉  Opening service default/my-service in default browser...
👉  http://127.0.0.1:36897
❗  Because you are using a Docker driver on linux, the terminal needs to be open to run it.
http://192.168.49.2:30078http://192.168.49.2:30078^C✋  Stopping tunnel for service my-service.
arunesh@Arunesh:~$ ^C
arunesh@Arunesh:~$ ^C
arunesh@Arunesh:~$ curl http://192.168.49.2:30078/
<!doctype html><html lang="en"><head><title>HTTP Status 404 – Not Found</title><style type="text/css">body {font-family:Tahoma,Arial,sans-serif;} h1, h2, h3
, b {color:white;background-color:#525D76;} h1 {font-size:22px;} h2 {font-size:16px;} h3 {font-size:14px;} p {font-size:12px;} a {color:black;} .line {heigh
t:1px;background-color:#525D76;border:none;}</style></head><body><h1>HTTP Status 404 – Not Found</h1><hr class="line" /><p><b>Type</b> Status Report</p><p><
b>Description</b> The origin server did not find a current representation for the target resource or is not willing to disclose that one exists.</p><hr clas
s="line" /><h3>Apache Tomcat/9.0.102</h3></body></html>arunesh@Arunesh:~$ curl http://192.168.49.2:30078/my-app/
<html>
<body>
<h2>Hello World!</h2>
</body>
</html>
```

Hello World!